WHAT IS CLAIMED IS:

1. A method comprising the steps of:

(a) outputting an optical signal having a chirping determined by a chirp parameter to an optical fiber transmission line;

(b) converting the optical signal transmitted by said optical fiber transmission line into an electrical signal;

(c) detecting a bit error of said electrical signal; andl

(d) controlling said chirp parameter so that said bit error detected is reduced.

2. A method according to claim 1, wherein said step (d) includes the step of switching the sign of said chirp parameter.

3. A method according to claim 2, wherein:

said step (a) includes the step of generating said optical signal by optical modulation using a Mach-Zehnder optical modulator; and

said step (d) includes the step of switching an operating point of said Mach-Zehnder optical modulator.

4. A method according to claim 1, wherein said step (a) includes the step of adjusting said chirp parameter to an optimum value so that said bit error

detected is minimized.

5. A method according to claim 4, wherein:

said step (a) includes the step of generating said optical signal by optical modulation using an electroabsorption optical modulator; and

said step (d) includes the step of changing a bias voltage to be applied to said electroabsorption optical modulator.

6. A method according to claim 1, wherein:

said step (a) includes the step of generating said optical signal by optical modulation based on a modulating signal obtained by adding a redundancy code to a transmission data code;

said method further comprises the step of correcting said bit error of said electrical signal according to said redundancy code; and

said step (c) includes the step of counting the number of corrections of said bit error obtained in said correcting step.

7. A system comprising:

first and second terminal devices; and

an optical fiber transmission line connecting said first and second terminal devices;

said first terminal device comprising an optical

transmitter for outputting an optical signal having a chirping determined by a chirp parameter to said optical fiber transmission line, and a control unit for controlling said chirp parameter according to a control signal;

said second terminal device comprising an optical receiver for converting the optical signal transmitted by said optical fiber transmission line into an electrical signal, a monitor unit for detecting a bit error of said electrical signal, and means for transmitting supervisory information on said bit error detected to said first terminal device;

whereby said control signal is generated in said first terminal device so that said bit error detected is reduced.

8. A system according to claim 7, wherein:

said optical transmitter comprises a light source for outputting continuous wave (CW) light, and a Mach-Zehnder optical modulator for modulating said CW light to generate said optical signal; and

said control unit includes means for switching an operating point of said Mach-Zehnder optical modulator, thereby switching the sign of said chirp parameter.

9. A system according to claim 7, wherein:

said optical transmitter comprises a light source for outputting continuous wave (CW) light, and an electroabsorption optical modulator for modulating said CW light to generate said optical signal; and

said control unit includes means for changing a bias voltage to be applied to said electroabsorption optical modulator, thereby adjusting said chirp parameter to an optimum value so that said bit error detected is minimized.

10. A system according to claim 7, wherein:

said optical transmitter comprises a light source for outputting continuous wave (CW) light, an encoder for adding a redundancy code to a transmission data code to thereby generate a modulating signal, an optical modulator for modulating said CW light according to said modulating signal to thereby generate said optical signal;

said optical receiver includes a decoder for correcting said bit error of said electrical signal according to said redundancy code; and

said monitor unit includes means for counting the number of corrections of said bit error obtained by said decoder.

11. A system according to claim 7, wherein:

said first terminal device further comprises an optical amplifier for amplifying the optical signal output from said optical transmitter.

12. A system according to claim 7, wherein:

said second terminal device further comprises an optical amplifier for amplifying the optical signal to be received by said optical receiver.

13. A system according to claim 7, wherein said optical fiber transmission line is provided by a dispersion shifted fiber having a zero-dispersion wavelength near 1.55μm.

14. A system according to claim 7, wherein said optical fiber transmission line is provided by a single-mode fiber having a zero-dispersion wavelength near 1.3μm.

15. A system according to claim 14, wherein said first terminal device further comprises a dispersion compensating fiber for compensating for chromatic dispersion occurring in said optical fiber transmission line, and an optical amplifier for amplifying the optical signal output from said optical transmitter.

16. A terminal device comprising:

an optical transmitter for outputting an optical signal having a chirping determined by a chirp parameter to an optical fiber transmission line;

means for receiving supervisory information on a bit error detected in relation to the optical signal transmitted by said optical fiber transmission line; and

means for controlling said chirp parameter according to said supervisory information so that said bit error detected is reduced.